

Amendments to claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Please amend claims 15 and 21 as indicated.

Claims 1-14 (cancelled).

Claim ~~15~~¹ (currently amended): A porous insulating film consisting essentially of a highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the insulating film in a nonlinear fashion have a mean pore size of $0.01 - 2 \mu\text{m}$ in the center of the film and $0.4 - 0.9$ ~~$0.14 - 2.8 \mu\text{m}$~~ at both surfaces of the film and a porosity of 15 – 80%;

b) the polyimide resin film is prepared from a polyimide precursor solution and consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic acid component and a diamine component; and

c) the insulating film has

a thickness of $5 - 150 \mu\text{m}$,

a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc and

a heat shrinkage of not greater than about $\pm 1\%$ after being heat-treated at 105°C for 8 hours and

does not contain a dense layer on either of the surfaces.

Claim 16. (previously presented): The porous insulating film according to claim 15, wherein the mean pore size in the center of the film is $0.05 - 1 \mu\text{m}$.

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Claim ~~17~~² (previously presented): The porous insulating film according to claim 15, wherein the porosity is 30 – 80%.

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Claim ~~18~~³ (previously presented): The porous insulating film according to claim 15, wherein the thickness is $5 - 100 \mu\text{m}$.

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Claim ~~19~~. (previously presented): The porous insulating film according to claim ~~15~~,
which is fabricated by a film casting method.

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Claim ~~20~~. (previously presented): The porous insulating film according to claim ~~15~~,
which has a dielectric constant of no greater than 2.5.

⁷
Claim ~~21~~. (currently amended): A porous insulating film consisting essentially of a
highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the insulating film in a
nonlinear fashion have a mean pore size of 0.01 – 2 μ m in the center of the film and 0.4 – 0.9
~~0.14 – 2.8~~ μ m at both surfaces of the film; and

b) the polyimide resin film is prepared from a polyimide precursor solution and
consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic
acid component and a diamine component and

c) the insulating film has

a thickness of 5 – 100 μ m,

a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc,

a heat resistance temperature of at least 200°C and

a heat shrinkage of not greater than $\pm 1\%$ after being heat-treated at 105°C

for 8 hours and

does not contain a dense layer on either of the surfaces.

⁸
Claim ~~22~~. (previously presented): A battery separator comprising a porous insulating
film according to claim 21.

¹⁰
⁷ Claim ~~23~~. (previously presented): The porous insulating film according to claim ~~15~~ or
~~21~~, wherein the tetracarboxylic acid component is selected from a biphenyltetracarboxylic
dianhydride, pyromellitic dianhydride and a benzophenonetetracarboxylic dianhydride.

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7 Claim ~~24~~ (previously presented): The porous insulating film according to claim ~~15~~ or ~~21~~, wherein the diamine component is selected from a phenylenediamine or a diaminodiphenylether.

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Claim ~~25~~ (previously presented): The porous insulating film according to claim 15, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.

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Claim ~~26~~ (previously presented): The porous insulating film according to claim ~~23~~, wherein the biphenyltetracarboxylic dianhydride is 3,3',4,4'-biphenyltetracarboxylic dianhydride.

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Claim ~~27~~ (previously presented): The porous insulating film according to claim 21, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.